**Abstract**: This final environmental impact statement/proposed resource management plan amendment describes the environmental effects of two proposals by Thompson Creek Mining Company: 1) a modified mining plan of operations (MMPO) for the Thompson Creek Molybdenum Mine near the City of Clayton in Custer County, Idaho; and 2) an exchange of Federal land at the mine for private lands owned by the company in Custer and Bannock counties, Idaho. In response to these proposals and a Section 404 Clean Water Act permit application, 1) the Bureau of Land Management (BLM) will decide whether to approve the portion of the MMPO involving BLM-administered land; 2) the Forest Service will decide whether to approve the portion of the MMPO involving National Forest System land; 3) the US Army Corps of Engineers will decide whether to issue a permit under Section 404 of the Clean Water Act to discharge fill materials into waters of the US as required by the MMPO; 4) the BLM will decide whether to amend the Challis Field Office 1999 resource management plan to identify the BLM-administered land in the land exchange proposal as available for disposal (exchange or sale); and 5) the BLM will decide whether to approve a land disposal action. The final environmental impact statement describes the environmental effects of the two proposals and alternatives to the proposals in a set of MMPO alternatives and an independent set of land disposal alternatives. Alternative M2 (MMPO as submitted) and Alternative L2 (land exchange proposal as submitted) are preferred by the responsible officials.